

**RECANALIZATION OF OCCLUDED VESSEL USING MAGNETIC RESONANCE GUIDANCE**

**ABSTRACT OF THE DISCLOSURE**

5        A method and apparatus for recanalizing a substantially totally occluded vessel in a subject. An image of the substantially totally occluded vessel is obtained using magnetic resonance. A recanalization device is guided using the obtained image. The occlusion is recanalized with the recanalization device. In one embodiment, a magnetic  
10      resonance signal is received with at least one external antenna located external to the body of the subject. A map image of the occluded vessel is generated using the signal received by the external antenna. A magnetic resonance signal is received with an internal antenna positioned within the body of the subject, proximate to the occluded  
15      vessel. The map image of the occluded vessel is locally enhanced using the signal received by the internal antenna.

100-2137-04 - 12345678